

We claim:-

1. A syntactic polyurethane obtainable by reacting
 - a) a polyisocyanate component with
 - 5 b) a polyol component, the polyol component b) comprising the constituents
 - b1) a polyetherpolyol mixture having an average OH number of from 10 to 280 and
 - b2) an oil based on fatty acids of 6 to 25 carbon atoms or derivatives thereof,10 in the presence of
 - c) hollow microspheres.
2. A syntactic polyurethane according to claim 1, wherein the polyol component b) additionally comprises the constituent15 b3) chain extender.
3. A syntactic polyurethane according to claim 1 or 2, wherein the component b2) is castor oil.
- 20 4. A syntactic polyurethane according to any of claims 1 to 3, wherein the individual constituents of the polyol component b) are selected so that the polyol component b) has a viscosity at 25°C of from 200 to 1 500 mPa.s, measured according to DIN 53019.
- 25 5. A syntactic polyurethane according to any of claims 1 to 4, wherein the component
 - b1) is present in an amount of from 5 to 60% by weight and the component
 - b2) is present in an amount of from 20 to 85% by weight,
 - based on the total weight of the polyol component b).30
6. A process for the preparation of syntactic polyurethanes by reacting
 - a) a polyisocyanate component with
 - b) a polyol component, the polyol component b) comprising the constituents
 - 35 b1) a polyetherpolyol mixture having an average OH number of from 10 to 280 and
 - b2) an oil based on fatty acids of 6 to 25 carbon atoms or derivatives thereof, in the presence of
 - c) hollow microspheres.
- 40 7. The use of a syntactic polyurethane according to any of claims 1 to 5 for insulating offshore pipes or for the production of sockets for offshore pipes.

8. An offshore pipe composed of
 - (i) an inner pipe and, adhesively applied thereto,
 - (ii) a layer of a syntactic polyurethane according to any of claims 1 to 5.
- 5 9. An offshore pipe according to claim 8, wherein the layer (ii) of syntactic polyurethane has a thickness of from 5 to 200 mm.
10. A process for the production of offshore pipes according to claim 8 or 9, comprising the steps
 - 10 1) provision of an inner pipe which is to be coated with syntactic polyurethane,
 - 2) rotation of the pipe to be coated and
 - 3) application of an unreacted reaction mixture for the production of the layer of syntactic polyurethane, comprising the components a), b) and c), to the
 - 15 rotating pipe.